

ATHERECTOMY CATHETER WITH ALIGNED IMAGER

ABSTRACT OF THE DISCLOSURE

5 An atherectomy catheter is provided for excising and imaging material in a
body lumen. In one embodiment, the catheter comprises a catheter body, a cutting blade, and
an imaging device. The cutting blade is mounted on the catheter body and configured to
move between a first position and a second position relative to an aperture or cutting window.
When the cutting blade is in the second position, the blade substantially closes the aperture on
the catheter body. The imaging device which is mounted on or otherwise coupled to the
10 cutting blade is configured to be in an imaging position when the cutting blade substantially
closes the aperture or cutter window. This allows the imaging device to survey material
within the cutting zone of the atherectomy catheter. By allowing the imaging device to view
materials within this cutting zone, material may be imaged and then removed from the body
lumen without having to reposition the catheter between each step.

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